

In the Matter of:

RM-11306--an amendment of Part 97 of the Commission's Rules Governing the Amateur Radio Service Concerning Permitted Emissions and Control Requirements.

Abstract: I propose a revision to the American Radio Relay League's (ARRL) Petition for Rule Making. My revision suggests a simple re-farming of the MF and HF amateur allocations, which reduces interference due to dissimilar bandwidth emissions, and provides for future experimentation and development.

I have been a licensed amateur radio operator for 34 years. I am an ARRL life member. I hold no employment or investment positions in ham radio. I am a repeater trustee and a radio club officer. I enjoy operating ssb with an atypical bandwidth (~ 4-5 KHz) when conditions, (such factors as low band population, limited skywave propagation and a lack of nearby stations) permit it.

When I first read the ARRL's draft of their rule proposal over a year ago, I was very much against it. Since then I have been further contemplating the proposal, reading Part 97, corresponding with ARRL officials, discussing the proposal with concerned hams, and reading their comments. As a result, my thinking on this issue has changed. I think that if the ARRL accomplishes nothing else, they will have succeeded in prompting many hams to consider the future of the Amateur Radio Service, and become acquainted with its official purpose, as set forth in the first few paragraphs of Part 97.

Responses to the ARRL's proposal to date reflect concerns with the protection, and regulation or lack thereof, of a number of facets of the hobby. There is concern for example, over the lack of band segments on 160 meters. I am in sympathy with most of these, and I would also like to point out that in my experience, the ARRL has listened to, and acted on my comments to them, and I expect those of others. The original proposal called for a bandwidth maximum of 3 KHz for single sideband. This was ultimately revised to 3.5 KHz. I communicated to League officials a belief that 3 KHz would not accommodate certain stock legacy rigs that were not engineered with an absolute bandwidth maximum in mind, and that hams needed a certain amount of "wriggle room" i.e. margin for error since they would most likely not own accurate bandwidth measuring equipment. I do not claim any status as agent of change; I only wish to point out that my comments were given a fair hearing. This added bandwidth was something that I personally could live with while allowing the League to meet its objectives.

While all this may be well and good, there are nevertheless to my thinking, flaws in the League's proposal with regard to HF and 160 meters, excluding the 60 meter channels:

It fails to include the 160 meter ham band in its regulation by bandwidth proposal, or more accurately, assigns the entire band a maximum of 3.5 KHz (9 KHz for AM).

The League's proposal makes inadequate provision for future undeveloped modes by asking for a HF limit of 3.5 KHz. They claim to be preparing for the future, but no one can guarantee that there will not be a day when some technology for information transmission via HF radio will need a bandwidth greater than 3.5 KHz.

The League's proposal also fails to contain 9 KHz AM as an extremely wide mode, instead allowing it to be operated anywhere in the 3.5 KHz range.

Indeed, this last item brings out one of the fundamental flaws in the League's proposal-- that it would fail to remedy an interference problem that currently exists, caused by adjacent stations operating with relatively different bandwidths. The idea of a band plan by bandwidth is not necessarily bad, however the League's execution of it would fail to prevent a narrow mode, such as CW, from being operated in the midst of wider modes such as voice SSB. Other examples that would be allowed are a 9 KHz AM station, operating in the midst of 3.5 KHz SSB stations; a RTTY station operating amongst analog voice stations and giving interference to, or receiving interference from, them. Again, these problems are just examples of the potential fallout of the League's proposal, because it provides for exclusive areas for narrow band modes, but does nothing to prevent narrow(er) modes from operating in the areas set aside for relatively wide modes. Currently, this mixing of bandwidths, accounts for a certain degree of animosity between those who favor somewhat wider bandwidth modes and those who's passions run towards the narrower modes.

To be sure, there are rules in place at this time that regulate intentional interference between amateur stations and in a perfect world, all hams would be polite, considerate, and go out of their way to carefully avoid compromising the enjoyment of others engaged in this pastime. However, in the real world, this does not always happen, and there are those who will continue to develop ways to obey the letter of the law, while violating its intent. It is impossible to regulate every conceivable circumstance of operation, but it is possible to set forth a blueprint that would increase the probability of enjoyable spectrum use amongst hams, while freeing the Commission from an increased enforcement burden.

With regard to the aforementioned problems, I propose a revision to the League's proposal, that I believe will not only correct these flaws, but also provide a band-plan that will be simple, and easy to follow and remember.

I propose that on 160 meters and HF, working from the low end of each band to the high end:

1. The bottom 20% of each amateur allocation be limited to modes no wider than 200 Hz.
2. The next 15% be reserved exclusively for modes with bandwidths ranging from 200 Hz to 500 Hz.
3. The following 50% be assigned exclusively to modes with bandwidths ranging from 500 Hz to 3.5 KHz.
4. The final top 15% of each band be reserved only for modes wider than 3.5 KHz.

To emphasize, these segments would be mutually exclusive, for example if operating a less than 200 Hz wide CW station, the operator would be required to occupy a frequency in the less than 200 Hz wide segment. Operation in the wider segments would be prohibited.

The greater than 3.5 KHz bandwidth segment would be open to any spectrally pure emission wider than 3.5 KHz, including data, AM and SSB modes. The maximum would be determined by the total width of the segment. This is an area where a future wide mode might be developed and tested; where some varieties of experimentation not covered by the ARRL plan, in keeping with one of the purposes of the amateur service, would take place.

All segments would of course vary, as percentages of each amateur band allocation.

Among other benefits, I believe my "20-15-50-15" revision to the ARRL's proposal will better provide for future experimentation, collect stations by similar bandwidths, and thereby prevent the potential for interference between stations with extremely different bandwidths. I think it is fair and equitable, represents current and future activity, and will prevent the possibility of an extremely wide bandwidth mode, from operating amongst those engaged in narrow weak signal work on 160 meters and other bands.

Respectfully submitted,

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